

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



19 OCT 2004



(43) International Publication Date
30 October 2003 (30.10.2003)

PCT

(10) International Publication Number
WO 03/089043 A2

(51) International Patent Classification²:

A61N

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number: PCT/IL03/00314

(22) International Filing Date: 15 April 2003 (15.04.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/374,224 19 April 2002 (19.04.2002) US

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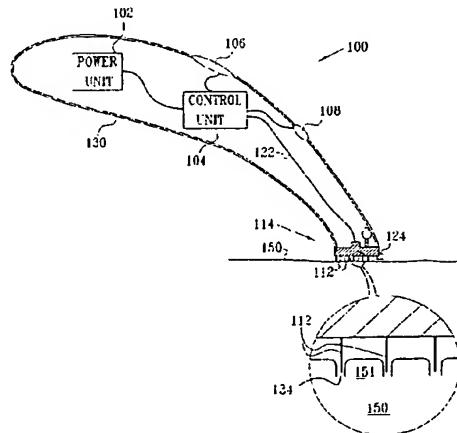
(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: HANDHELD TRANSDERMAL DRUG DELIVERY AND ANALYTE EXTRACTION



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(57) Abstract: Apparatus (20) for application to skin of a subject is provided. The apparatus includes a board (30) having a first surface and a second surface, the first surface including a plurality of ablation electrodes (41), which are adapted to be applied to the skin, and the second surface including one or more contact pads (32), each one of the contact pads electrically coupled to at least one of the ablation electrodes. The apparatus further includes one or more driving electrodes (28). An energy applicator (e.g., motor 22), coupled to the driving electrodes, is adapted to pass the driving electrodes over the contact pads. A power source (e.g., power unit 102) is adapted to drive a current from the driving electrodes, to the contact pads, and to the ablation electrodes. The current is capable of ablating at least a portion of stratum corneum of the skin in a vicinity of the ablation electrodes, so as to facilitate transdermal transport of a substance.